Texas Probable Maximum Precipitation (PMP)

GIS Service - User Guide

The PMP GIS tool is a geoprocessing service hosted by the TCEQ.

This tool calculates gridded PMP depths for a given drainage basin for the specified durations for general, local, and tropical storm types. PMP values are calculated (in inches) for each grid point (spaced at 90 arc-second intervals) within (or adjacent to) the drainage basin. A Basin Average table is created over the basin using the grid point PMP values.

This tool will have a max processing load of 6 instances at a single time. This is to ensure efficient processing time and capacity.

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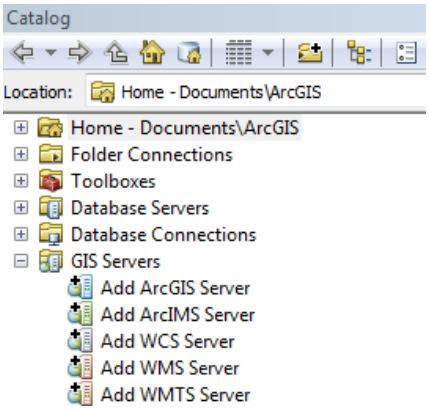
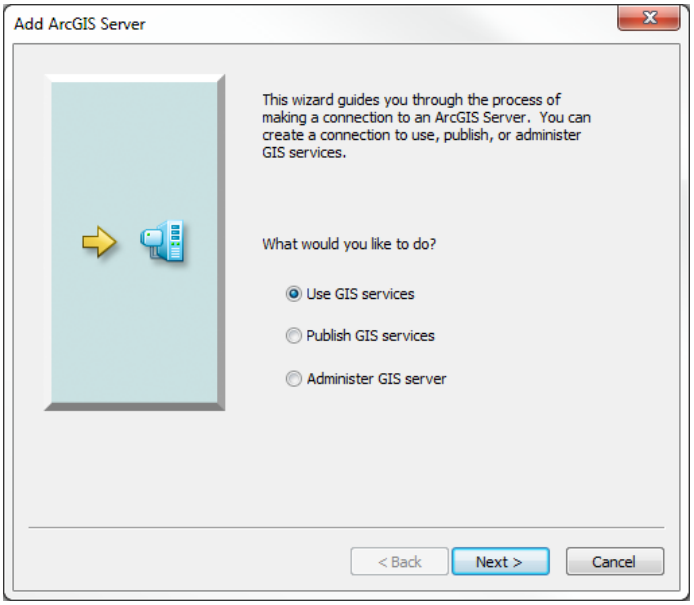
Adding Tool Connection

Within **ArcMap**, open **ArcCatalog**. Navigate to the **GIS Servers** folder and double click **Add ArcGIS Server**.

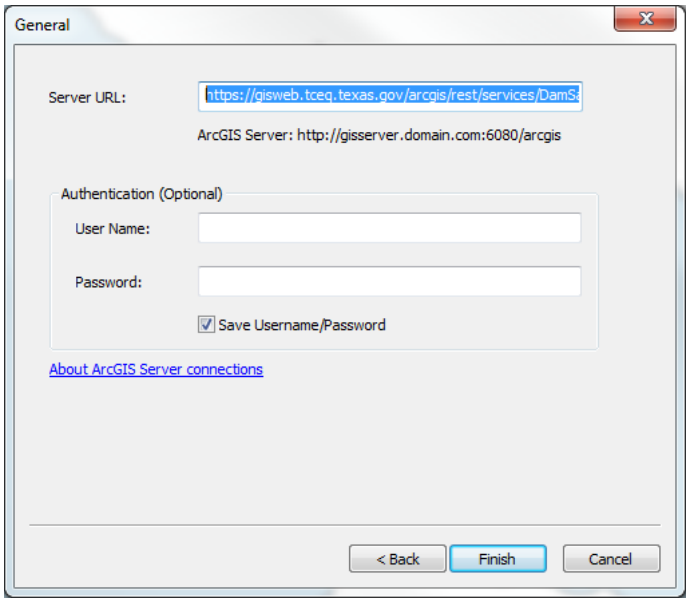




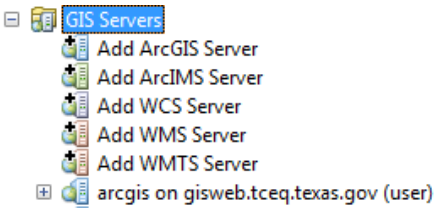
Accept the default of **Use GIS services** and click the **Next >** button.

Enter the following link into the **Server URL**, replacing the existing http://

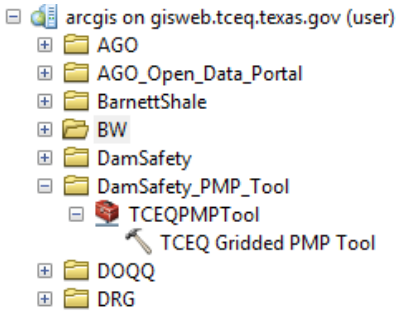
https://gisweb.tceq.texas.gov/arcgis/rest/services/DamSafety_PMP_Tool/TCEQPMPTool/GPServer

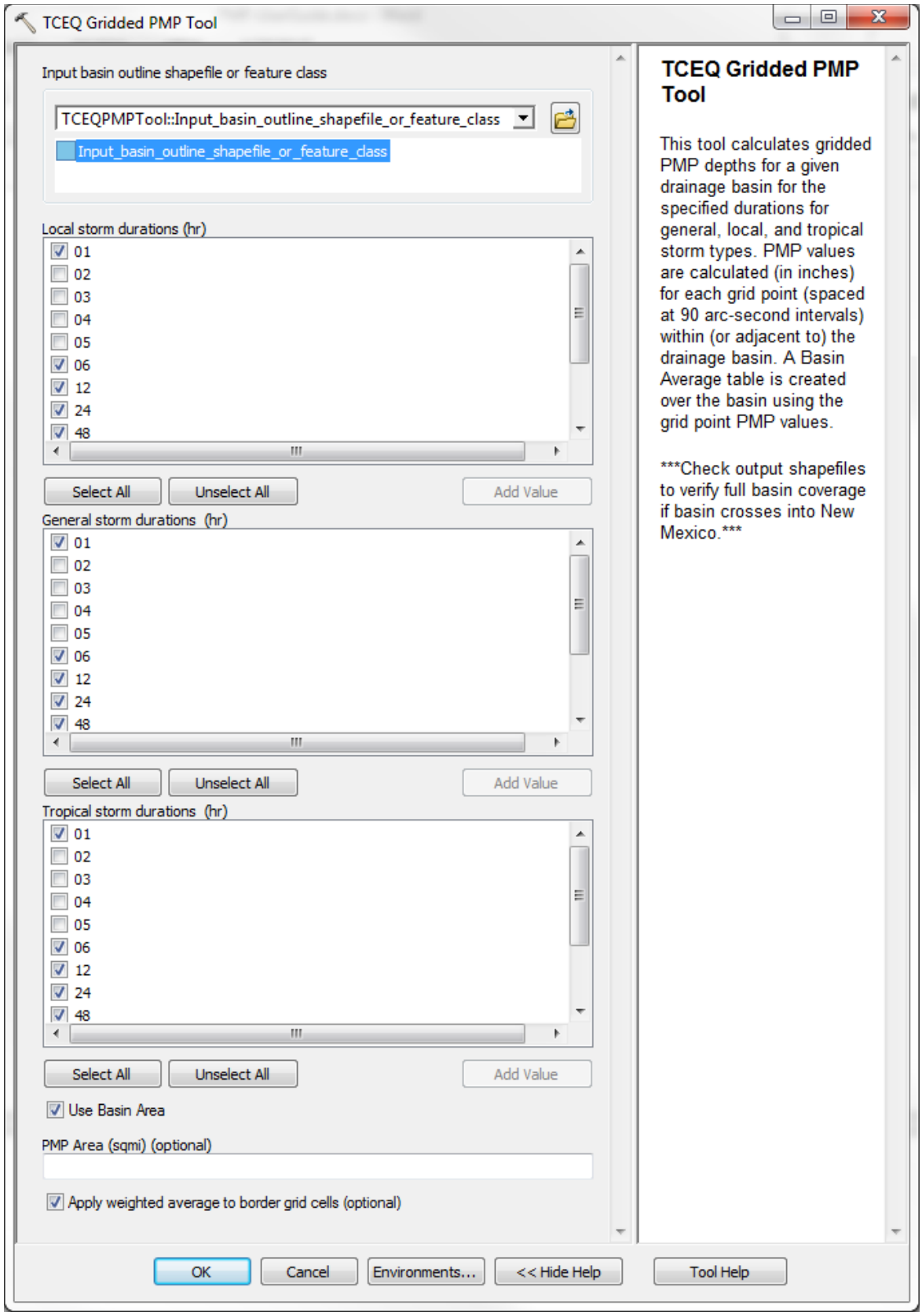


Press Finish. There should now be a new link within the **GIS Servers** folder labeled **gisweb.tceq.texas.gov**



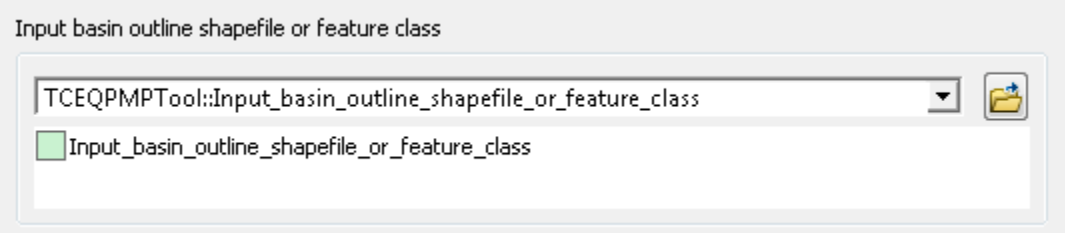
Navigate to the **DamSafety_PMP_Tool** folder and open the **TCEQPMPTool** toolbox. Open the **TCEQ Gridded PMP Tool.**




TCEQ Gridded PMP Tool
Input basin outline shapefile or feature class
TCEQPMPTool::Input_basin_outline_shapefile_or_feature_class
Input_basin_outline_shapefile_or_feature_class
Local storm durations (hr)
01
02
03
04
05
06
12
24
48
Select All
Unselect All
Add Value
General storm durations (hr)
01
02
03
04
05
06
12
24
48
Select All
Unselect All
Add Value
Tropical storm durations (hr)
01
02
03
04
05
06
12
24
48
Select All
Unselect All
Add Value
Use Basin Area
PMP Area (sqmi) (optional)
Apply weighted average to border grid cells (optional)
TCEQ Gridded PMP Tool
This tool calculates gridded PMP depths for a given drainage basin for the specified durations for general, local, and tropical storm types. PMP values are calculated (in inches) for each grid point (spaced at 90 arc-second intervals) within (or adjacent to) the drainage basin. A Basin Average table is created over the basin using the grid point PMP values.
Check output shapefiles to verify full basin coverage if basin crosses into New Mexico.
OK
Cancel
Environments...
<< Hide Help
Tool Help

TCEQ Gridded PMP Tool Explained

Input basin



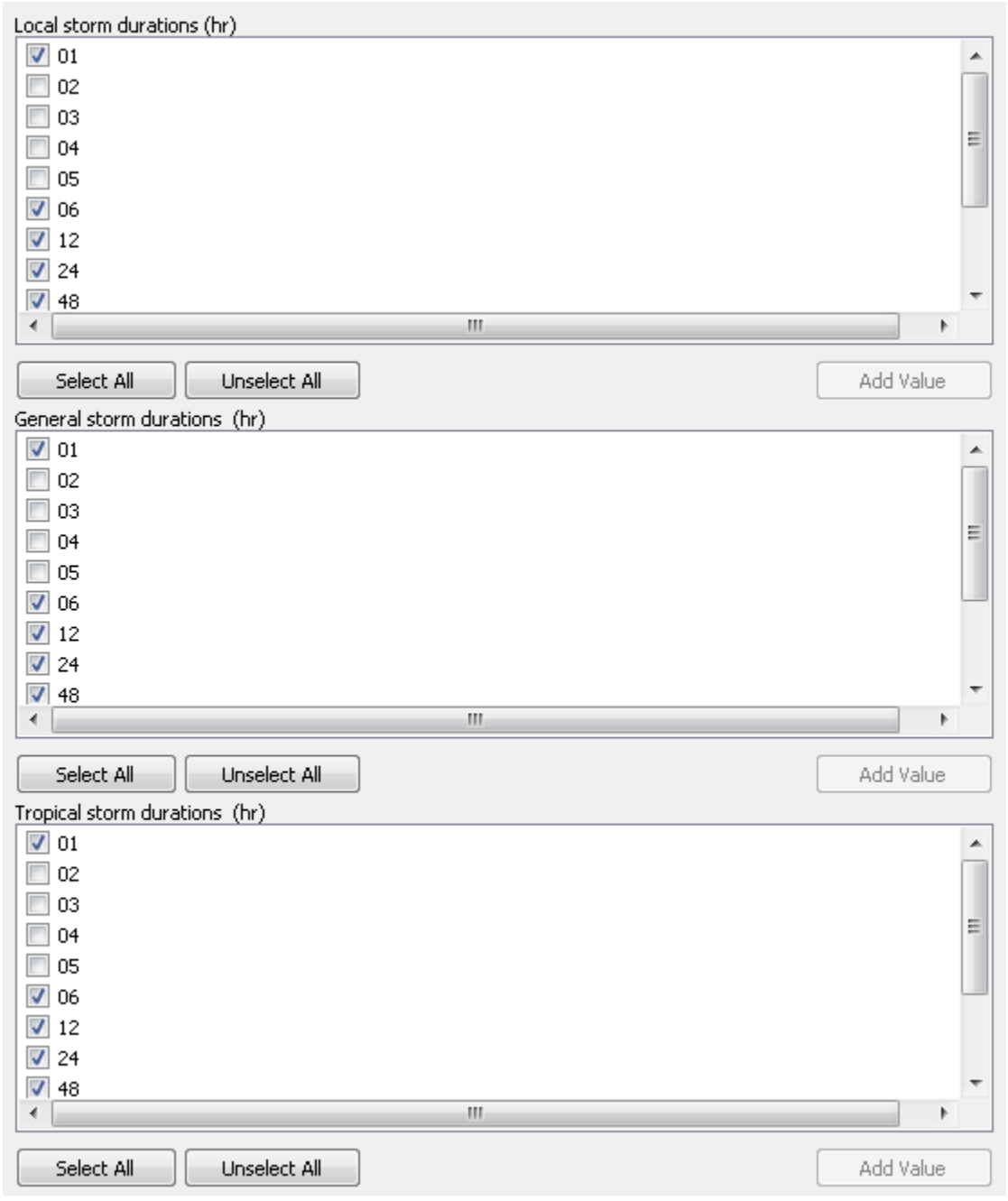
There are several different methods of input for this field.

1. Choosing an existing layer within the Map by clicking the drop-down
2. Choosing a layer within a folder by clicking the Browse button
3. Drawing a polygon directly on the Map after opening the tool

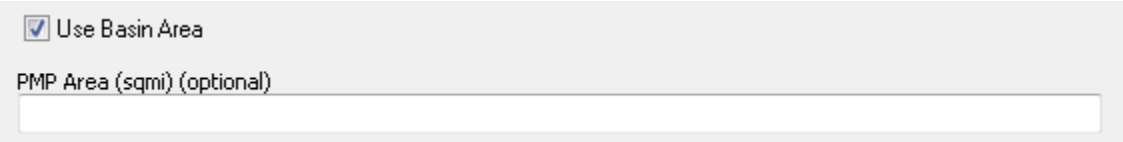
The input basin should be a projected polygon shapefile or feature class. If it is split into sub-basins, utilize the Dissolve tool (Data Management) to create a new shapefile of the full basin. If the layer contains multiple basins, use the select tool to highlight a **single** basin. **The tool will only process one item at a time.**

Storm Types and Durations

Each storm type (Local, General and Tropical) requires durations to be selected. The durations, in hours, require **at least one selection per storm type**. All storms have the following durations: 1, 2, 3, 4, 5, 6, 12, 24, 48, 72, 96, and 120.

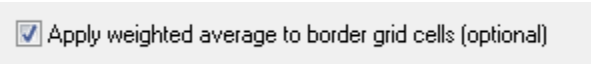

Local storm durations (hr)
01
02
03
04
05
06
12
24
48
Select All
Unselect All
Add Value
General storm durations (hr)
01
02
03
04
05
06
12
24
48
Select All
Unselect All
Add Value
Tropical storm durations (hr)
01
02
03
04
05
06
12
24
48
Select All
Unselect All
Add Value

Use Basin Area / PMP Area

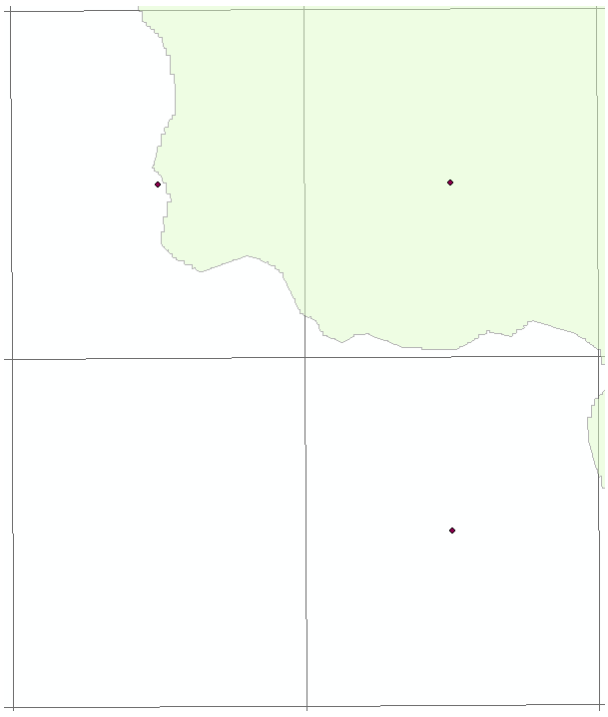


Use Basin Area is the default and should always be checked, unless processing sub-basins. When processing sub-basins, the **Use Basin Area** is unchecked and a value must be entered in the **PMP Area** field. These steps are outlined below.

Apply Weighted Average

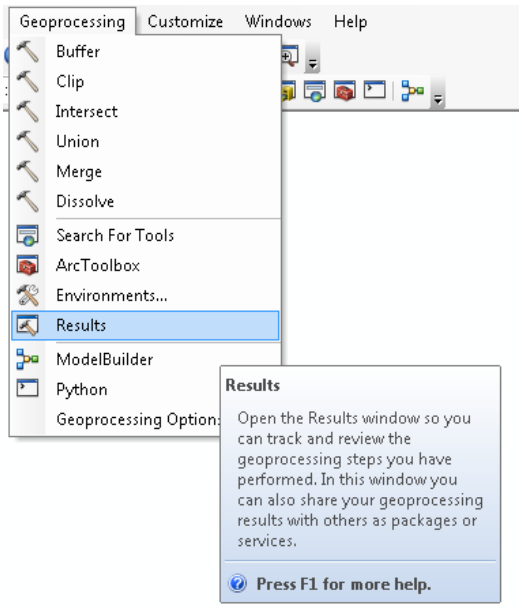


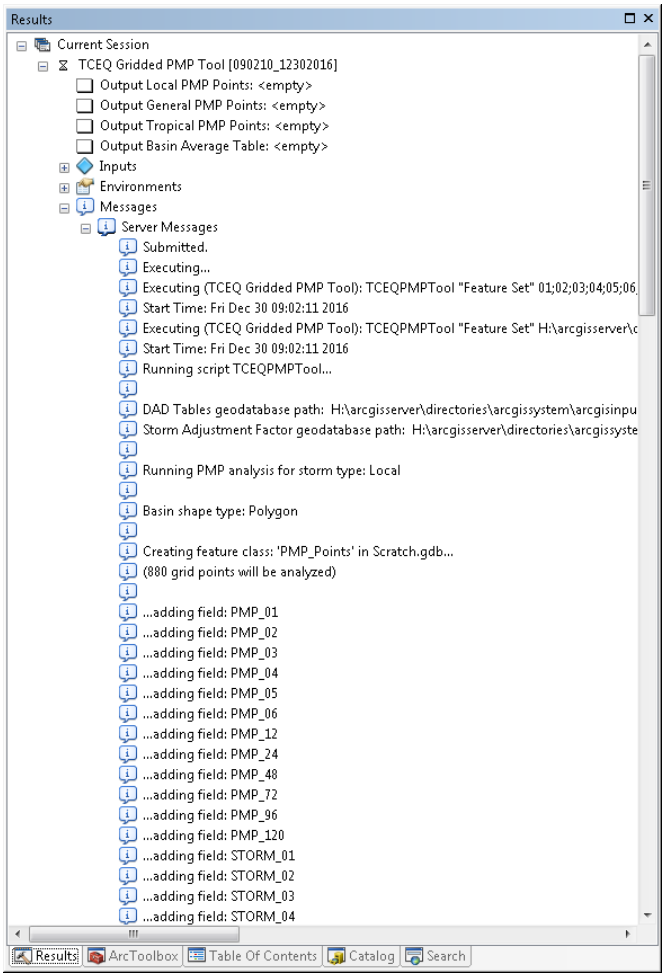
The **Apply weighted average to border grid cells** takes the percent of the Basin covering each cell and adjusts the value.



For instance, in the example to the right, instead of taking the full value of all three cells shown, this option only applies the percent of the covered areas. So the cell that only has a fraction covered will not be over-valued.

Once all the options are selected, and the tool is running, the only way to ensure processing is to open the **Results** window under the **Geoprocessing** tab.





Once the **Results** window is open, the tool will show under the **Current Session** section. There are several different symbols that could show next to the tool.

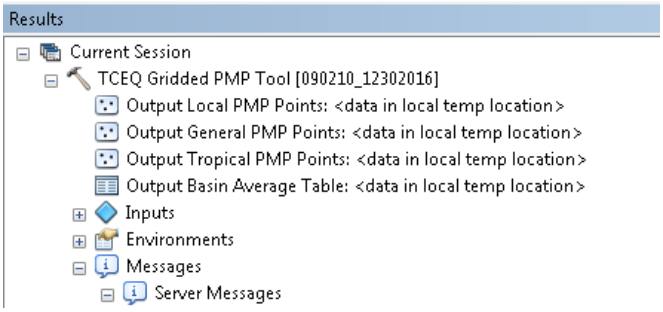
■ A cancelled tool

⧖ A tool that is currently processing

A tool that has been completed

A tool in queue. Depending on processing volume, this could take some time to run.

A tool that has error and did not process.

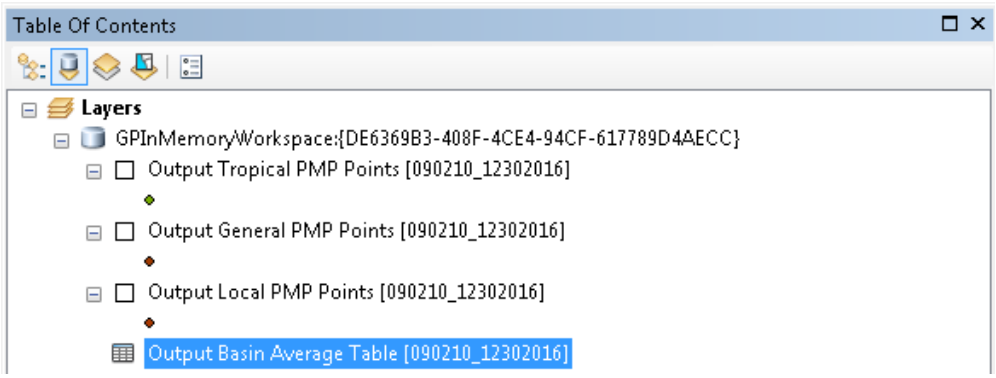


Once the tool has finished processing, the results tab will identify that the data is located in a local temp location.

Navigate to the Table of Contents to view and export data to a permanent location.

Outputs

One table and three shapefiles are the outputs of this tool.



The Basin Average Table is the main output for this tool. It contains the PMP values for each storm type and duration. Choose the duration value that makes the most sense for your study. Usually this would be the most conservative value.

Table

Output Basin Average Table [090210_12302016]

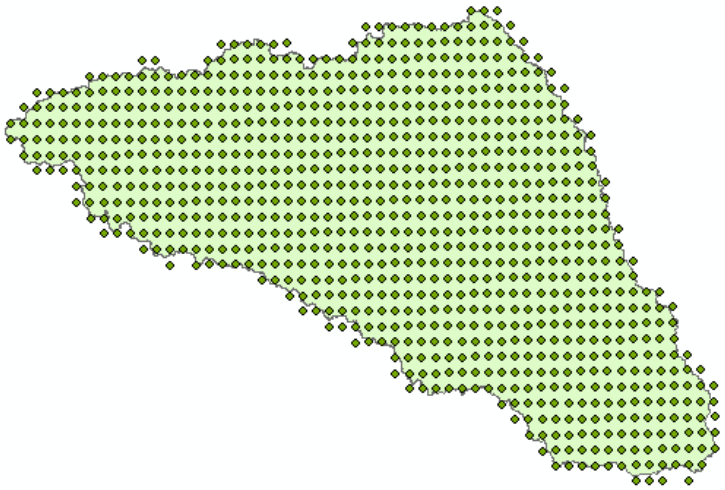
OID	STORM_TYPE	PMP_01	PMP_02	PMP_03	PMP_04	PMP_05	PMP_06	PMP_12	PMP_24	PMP_48	PMP_72	PMP_96	PMP_120
1	Local	3.2	6.15	9.23	9.95	10.56	11.16	13.97	23.04	28.49	28.54	28.54	28.54
2	General	3.33	4.76	5.82	7.25	8.59	10.01	14.87	18.5	24.6	28.47	29.62	29.65
3	Tropical	2.99	5.97	8.96	9.66	10.25	10.84	14.73	23.69	29.29	29.39	29.39	29.39

1 (0 out of 3 Selected)

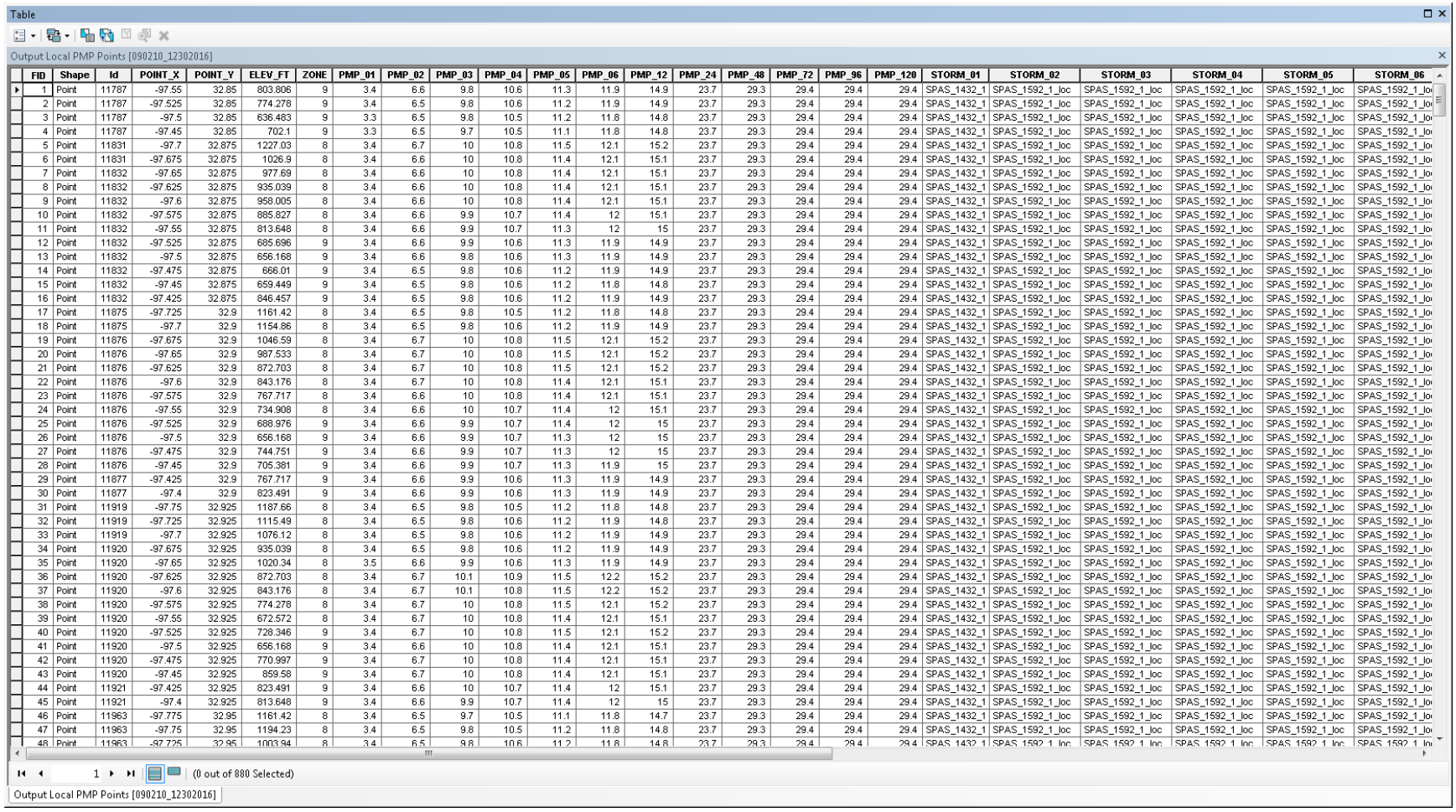
Output Basin Average Table [090210_12302016]

There is no need to use HMR52 to obtain values. This tool provides the only values you need. Please see the PMP Study Documenation for further reference.

The shapefiles, correlating to each storm type, contain points representing the grid cells intersecting the basin. Each row in their attribute table contains the lat/long, elevation, zone, and PMP values for each duration with their corresponding storms. See the attribute table below for reference.



***If the input basin crosses into New Mexico, check the output shapefiles to verify full basin coverage. The study area does not fully extend into New Mexico. ***



Table

Output Local PMP Points [090210_12302016]

FID	Shape	Id	POINT_X	POINT_Y	ELEV_FT	ZONE	PMP_01	PMP_02	PMP_03	PMP_04	PMP_05	PMP_06	PMP_12	PMP_24	PMP_48	PMP_72	PMP_96	PMP_120	STORM_01	STORM_02	STORM_03	STORM_04	STORM_05	STORM_06
1	Point	11787	-97.55	32.85	803.806	9	3.4	6.6	9.8	10.6	11.3	11.9	14.9	23.7	29.3	29.4	29.4	29.4	SPAS_1432_1	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_lo
2	Point	11787	-97.525	32.85	774.278	9	3.4	6.5	9.8	10.6	11.2	11.9	14.9	23.7	29.3	29.4	29.4	29.4	SPAS_1432_1	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_lo
3	Point	11787	-97.5	32.85	636.483	9	3.3	6.5	9.8	10.5	11.2	11.8	14.8	23.7	29.3	29.4	29.4	29.4	SPAS_1432_1	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_lo
4	Point	11787	-97.45	32.85	702.1	9	3.3	6.5	9.7	10.5	11.1	11.8	14.8	23.7	29.3	29.4	29.4	29.4	SPAS_1432_1	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_lo
5	Point	11831	-97.7	32.875	1227.03	8	3.4	6.7	10	10.8	11.5	12.1	15.2	23.7	29.3	29.4	29.4	29.4	SPAS_1432_1	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_lo
6	Point	11831	-97.675	32.875	1026.9	8	3.4	6.6	10	10.8	11.4	12.1	15.1	23.7	29.3	29.4	29.4	29.4	SPAS_1432_1	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_lo
7	Point	11832	-97.65	32.875	977.69	8	3.4	6.6	10	10.8	11.4	12.1	15.1	23.7	29.3	29.4	29.4	29.4	SPAS_1432_1	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_lo
8	Point	11832	-97.625	32.875	935.039	8	3.4	6.6	10	10.8	11.4	12.1	15.1	23.7	29.3	29.4	29.4	29.4	SPAS_1432_1	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_lo
9	Point	11832	-97.6	32.875	958.005	8	3.4	6.6	10	10.8	11.4	12.1	15.1	23.7	29.3	29.4	29.4	29.4	SPAS_1432_1	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_lo
10	Point	11832	-97.575	32.875	885.827	8	3.4	6.6	9.9	10.7	11.4	12	15.1	23.7	29.3	29.4	29.4	29.4	SPAS_1432_1	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_lo
11	Point	11832	-97.55	32.875	813.648	8	3.4	6.6	9.9	10.7	11.3	12	15	23.7	29.3	29.4	29.4	29.4	SPAS_1432_1	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_lo
12	Point	11832	-97.525	32.875	685.696	9	3.4	6.6	9.9	10.6	11.3	11.9	14.9	23.7	29.3	29.4	29.4	29.4	SPAS_1432_1	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_lo
13	Point	11832	-97.5	32.875	656.168	9	3.4	6.6	9.8	10.6	11.3	11.9	14.9	23.7	29.3	29.4	29.4	29.4	SPAS_1432_1	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_lo
14	Point	11832	-97.475	32.875	666.01	9	3.4	6.5	9.8	10.6	11.2	11.9	14.9	23.7	29.3	29.4	29.4	29.4	SPAS_1432_1	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_lo
15	Point	11832	-97.45	32.875	659.449	9	3.4	6.5	9.8	10.6	11.2	11.8	14.8	23.7	29.3	29.4	29.4	29.4	SPAS_1432_1	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_lo
16	Point	11832	-97.425	32.875	846.457	9	3.4	6.5	9.8	10.6	11.2	11.9	14.9	23.7	29.3	29.4	29.4	29.4	SPAS_1432_1	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_lo
17	Point	11875	-97.725	32.9	1161.42	8	3.4	6.5	9.8	10.5	11.2	11.8	14.8	23.7	29.3	29.4	29.4	29.4	SPAS_1432_1	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_lo
18	Point	11875	-97.7	32.9	1154.86	8	3.4	6.5	9.8	10.6	11.2	11.9	14.9	23.7	29.3	29.4	29.4	29.4	SPAS_1432_1	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_lo
19	Point	11876	-97.675	32.9	1046.59	8	3.4	6.7	10	10.8	11.5	12.1	15.2	23.7	29.3	29.4	29.4	29.4	SPAS_1432_1	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_lo
20	Point	11876	-97.65	32.9	987.533	8	3.4	6.7	10	10.8	11.5	12.1	15.2	23.7	29.3	29.4	29.4	29.4	SPAS_1432_1	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_lo
21	Point	11876	-97.625	32.9	872.703	8	3.4	6.7	10	10.8	11.5	12.1	15.2	23.7	29.3	29.4	29.4	29.4	SPAS_1432_1	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_lo
22	Point	11876	-97.6	32.9	843.176	8	3.4	6.7	10	10.8	11.4	12.1	15.1	23.7	29.3	29.4	29.4	29.4	SPAS_1432_1	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_lo
23	Point	11876	-97.575	32.9	767.717	8	3.4	6.6	10	10.8	11.4	12.1	15.1	23.7	29.3	29.4	29.4	29.4	SPAS_1432_1	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_lo
24	Point	11876	-97.55	32.9	734.908	8	3.4	6.6	10	10.7	11.4	12	15.1	23.7	29.3	29.4	29.4	29.4	SPAS_1432_1	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_lo
25	Point	11876	-97.525	32.9	688.976	9	3.4	6.6	9.9	10.7	11.4	12	15	23.7	29.3	29.4	29.4	29.4	SPAS_1432_1	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_lo
26	Point	11876	-97.5	32.9	656.168	9	3.4	6.6	9.9	10.7	11.3	12	15	23.7	29.3	29.4	29.4	29.4	SPAS_1432_1	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_lo
27	Point	11876	-97.475	32.9	744.751	9	3.4	6.6	9.9	10.7	11.3	12	15	23.7	29.3	29.4	29.4	29.4	SPAS_1432_1	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_lo
28	Point	11876	-97.45	32.9	705.381	9	3.4	6.6	9.9	10.7	11.3	11.9	15	23.7	29.3	29.4	29.4	29.4	SPAS_1432_1	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_lo
29	Point	11877	-97.425	32.9	767.717	9	3.4	6.6	9.9	10.6	11.3	11.9	14.9	23.7	29.3	29.4	29.4	29.4	SPAS_1432_1	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_lo
30	Point	11877	-97.4	32.9	823.491	9	3.4	6.6	9.9	10.6	11.3	11.9	14.9	23.7	29.3	29.4	29.4	29.4	SPAS_1432_1	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_lo
31	Point	11919	-97.75	32.925	1187.66	8	3.4	6.5	9.8	10.5	11.2	11.8	14.8	23.7	29.3	29.4	29.4	29.4	SPAS_1432_1	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_lo
32	Point	11919	-97.725	32.925	1115.49	8	3.4	6.5	9.8	10.6	11.2	11.9	14.8	23.7	29.3	29.4	29.4	29.4	SPAS_1432_1	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_lo
33	Point	11919	-97.7	32.925	1076.12	8	3.4	6.5	9.8	10.6	11.2	11.9	14.9	23.7	29.3	29.4	29.4	29.4	SPAS_1432_1	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_lo
34	Point	11920	-97.675	32.925	935.039	8	3.4	6.5	9.8	10.6	11.2	11.9	14.9	23.7	29.3	29.4	29.4	29.4	SPAS_1432_1	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_lo
35	Point	11920	-97.65	32.925	1020.34	8	3.5	6.6	9.9	10.6	11.3	11.9	14.9	23.7	29.3	29.4	29.4	29.4	SPAS_1432_1	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_lo
36	Point	11920	-97.625	32.925	872.703	8	3.4	6.7	10.1	10.9	11.5	12.2	15.2	23.7	29.3	29.4	29.4	29.4	SPAS_1432_1	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_lo
37	Point	11920	-97.6	32.925	843.176	8	3.4	6.7	10.1	10.8	11.5	12.2	15.2	23.7	29.3	29.4	29.4	29.4	SPAS_1432_1	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_lo
38	Point	11920	-97.575	32.925	774.278	8	3.4	6.7	10	10.8	11.5	12.1	15.2	23.7	29.3	29.4	29.4	29.4	SPAS_1432_1	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_lo
39	Point	11920	-97.55	32.925	672.572	8	3.4	6.7	10	10.8	11.4	12.1	15.1	23.7	29.3	29.4	29.4	29.4	SPAS_1432_1	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_lo
40	Point	11920	-97.525	32.925	728.346	9	3.4	6.7	10	10.8	11.5	12.1	15.2	23.7	29.3	29.4	29.4	29.4	SPAS_1432_1	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_lo
41	Point	11920	-97.5	32.925	656.168	9	3.4	6.6	10	10.8	11.4	12.1	15.1	23.7	29.3	29.4	29.4	29.4	SPAS_1432_1	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_lo
42	Point	11920	-97.475	32.925	770.997	9	3.4	6.7	10	10.8	11.4	12.1	15.1	23.7	29.3	29.4	29.4	29.4	SPAS_1432_1	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_lo
43	Point	11920	-97.45	32.925	859.58	9	3.4	6.7	10	10.8	11.4	12.1	15.1	23.7	29.3	29.4	29.4	29.4	SPAS_1432_1	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_lo
44	Point	11921	-97.425	32.925	823.491	9	3.4	6.6	10	10.7	11.4	12	15.1	23.7	29.3	29.4	29.4	29.4	SPAS_1432_1	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_lo
45	Point	11921	-97.4	32.925	813.648	9	3.4	6.6	9.9	10.7	11.4	12	15	23.7	29.3	29.4	29.4	29.4	SPAS_1432_1	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_lo
46	Point	11963	-97.775	32.95	1161.42	8	3.4	6.5	9.7	10.5	11.1	11.8	14.7	23.7	29.3	29.4	29.4	29.4	SPAS_1432_1	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_lo
47	Point	11963	-97.75	32.95	1194.23	8	3.4	6.5	9.8	10.5	11.2	11.8	14.8	23.7	29.3	29.4	29.4	29.4	SPAS_1432_1	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_lo
48	Point	11963	-97.725	32.95	1003.94	8	3.4	6.5	9.8	10.6	11.2	11.8	14.8	23.7	29.3	29.4	29.4	29.4	SPAS_1432_1	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_loc	SPAS_1592_1_lo

1 (0 out of 880 Selected)

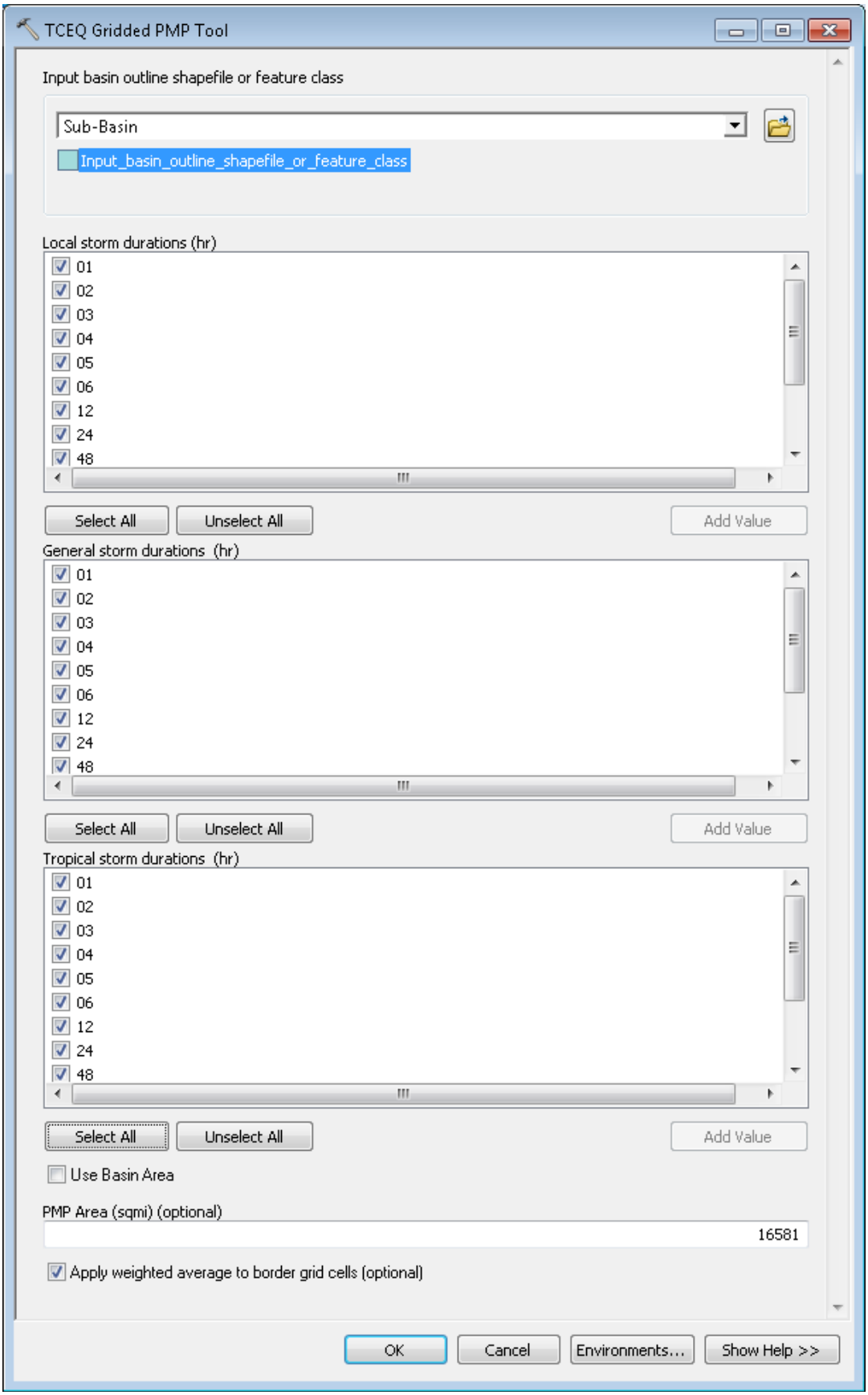
Output Local PMP Points [090210_12302016]

Processing sub-basins

To process a sub-basin (shown in green), the Area in square miles of the original basin (shown in black) is needed. For this example, the Total Basin Area is 16,581 sqmi.

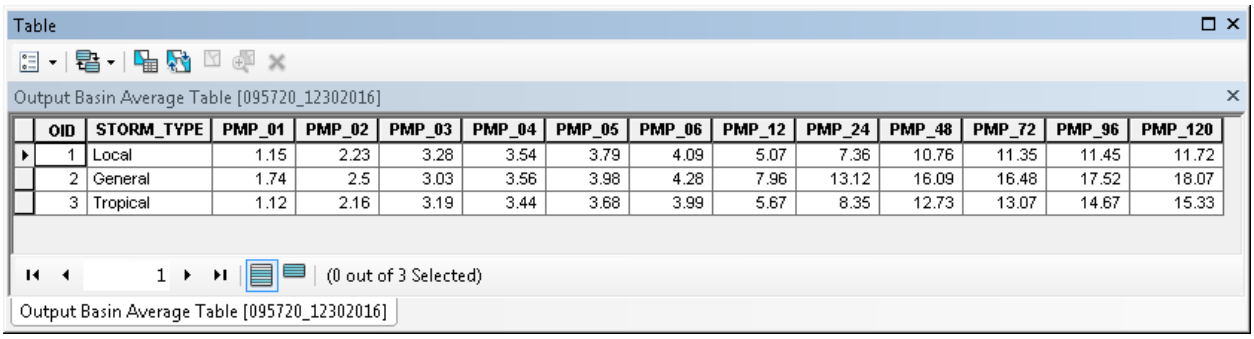
After opening the tool, select the sub-basin as the input. If all sub-basins are within a single shapefile, use the select tool and highlight a **single** sub-basin before processing. Select the storm durations, then scroll down to the **Use Basin Area** field and **uncheck** the box. In the **PMP Area** field, enter the total area for the original basin, 16,581.

See the below for reference.


TCEQ Gridded PMP Tool
Input basin outline shapefile or feature class
Sub-Basin
Input_basin_outline_shapefile_or_feature_class
Local storm durations (hr)
01
02
03
04
05
06
12
24
48
Select All
Unselect All
Add Value
General storm durations (hr)
01
02
03
04
05
06
12
24
48
Select All
Unselect All
Add Value
Tropical storm durations (hr)
01
02
03
04
05
06
12
24
48
Select All
Unselect All
Add Value
Use Basin Area
PMP Area (sqmi) (optional)
16581
Apply weighted average to border grid cells (optional)
OK
Cancel
Environments...
Show Help >>

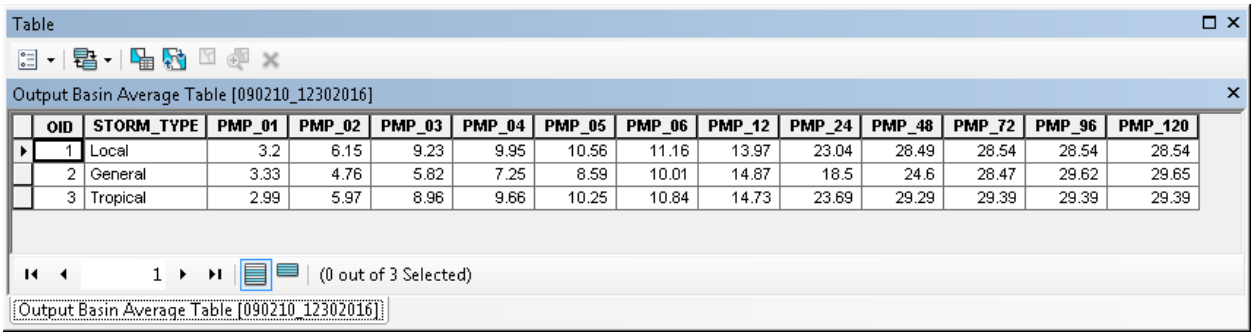
Notice in the tables below the difference in processing an area as a sub-basin versus a stand-alone basin.

Area processed as sub-basin



OID	STORM_TYPE	PMP_01	PMP_02	PMP_03	PMP_04	PMP_05	PMP_06	PMP_12	PMP_24	PMP_48	PMP_72	PMP_96	PMP_120
1	Local	1.15	2.23	3.28	3.54	3.79	4.09	5.07	7.36	10.76	11.35	11.45	11.72
2	General	1.74	2.5	3.03	3.56	3.98	4.28	7.96	13.12	16.09	16.48	17.52	18.07
3	Tropical	1.12	2.16	3.19	3.44	3.68	3.99	5.67	8.35	12.73	13.07	14.67	15.33

Compared to the sub-basin being run as its own basin...below



OID	STORM_TYPE	PMP_01	PMP_02	PMP_03	PMP_04	PMP_05	PMP_06	PMP_12	PMP_24	PMP_48	PMP_72	PMP_96	PMP_120
1	Local	3.2	6.15	9.23	9.95	10.56	11.16	13.97	23.04	28.49	28.54	28.54	28.54
2	General	3.33	4.76	5.82	7.25	8.59	10.01	14.87	18.5	24.6	28.47	29.62	29.65
3	Tropical	2.99	5.97	8.96	9.66	10.25	10.84	14.73	23.69	29.29	29.39	29.39	29.39

For any questions or troubleshooting, please contact: DamsInfo@tceq.texas.gov